DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No. 307TVP01 Issue Date: November 28, 2003
Application No. A000307 Expiration Date: December 31, 2008

Permit Revision 1: August 3, 2005

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an Operating Permit to the Permittee, United States Air Force , for the operation of the Eareckson Air Station.

This permit satisfies the obligation of the owner and operator to obtain an Operating Permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this Operating Permit.

All stationary source-specific terms and conditions of Air Quality Control Permit-to-Operate No. 9325-AA007 and Preliminary Air Quality Control Construction Permit No. 307CP01 Revision 1 have been incorporated into this Operating Permit.

This Operating Permit becomes effective January 1, 2004.

John F. Kuterbach, Manager

Air Permits Program

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List of Abbreviations Used in this Permit

AAC .....Alaska Administrative Code
ADEC.....Alaska Department of Environmental Conservation
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT.....Best Available Control Technology
BHP.....Break Horse Power
C.F.R. .....Code of Federal Regulations
CO .....Carbon Monoxide
dscf.....Dry standard cubic foot
EPA.....US Environmental Protection Agency
gr./dscf .....grain per dry standard cubic foot (1 pound = 7000 grains)
GPH.....gallons per hour
HAPs or HACs.....Hazardous Air Pollutants or Hazardous Air Contaminants [*HAPs* or *HACs* as defined in AS 46.14.990(14)]
ID .....Unit Identification Number
kPa.....kiloPascals
LAER .....Lowest Achievable Emission Rate
MACT.....Maximum Achievable Control Technology as defined in 40 C.F.R. 63.
MR&R.....Monitoring, Recordkeeping, and Reporting
NESHAPs .....Federal National Emission Standards for Hazardous Air Pollutants [*NESHAPS* as contained in 40 C.F.R. 61 and 63]
NO_X.....Nitrogen Oxides
NSPS .....Federal New Source Performance Standards [*NSPS* as contained in 40 C.F.R. 60]
O & M.....Operation and Maintenance
O_2 .....Oxygen
PM-10 .....Particulate Matter less than or equal to a nominal ten microns in diameter
ppm .....Parts per million
ppmv, ppmvd .....Parts per million by volume on a dry basis
psia.....Pounds per Square Inch (absolute)
PSD .....Prevention of Significant Deterioration
PTE .....Potential to Emit
SCR.....Selective Catalytic Reduction
SIC. .....Standard Industrial Classification
SO_2.....Sulfur dioxide
TPH.....Tons per hour
TPY.....Tons per year
VOC.....volatile organic compound [*VOC* as defined in 18 AAC 50.990(103)]
VOL .....volatile organic liquid [*VOL* as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol%.....volume percent
wt% .....weight percent

Section 1. Identification

Names and Addresses

Permittee:	**United States Air Force** 611th Air Support Group 10471 20th St., Suite 361 Elmendorf AFB, Alaska 99506-2200
Stationary Source Name:	**Eareckson Air Station**
Location:	52˚ 42.75′ North; 174˚ 6.82' East
Physical Address:	Shemya Island, Alaska
Owner:	Same as Permittee
Operator:	Chugach Eareckson Support Services 360 E. International Airport Road, Unit 4 Anchorage, Alaska 99518
Permittee's Responsible Official	Colonel Steven E. Armstrong
Designated Agent:	Major F. Scott Risley U.S. Air Force, 11th Air Force Office of the Staff Judge Advocate (11 AF/JA) 10471 20th St. Suite 262 Elmendorf AFB Alaska 99506-2200
Building and Fee Contact:	Mr. Dennis Korycinski 611th Civil Engineer Squadron, Environmental Flight 10471 20th St., Suite 361 Elmendorf AFB, Alaska 99506-2200

Stationary Source Process Description

SIC Code of the Stationary Source: 9711 National Security

[18 AAC 50.350(b)(1), 1/18/97]

Section 2. General Emission Information

[18 AAC 50.350(b)(1), 1/18/97]

Emissions of Regulated Air Contaminants:

Particulate Matter (PM-10), Sulfur Dioxide (SO_2), Nitrogen Oxides (NOx), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC).

Stationary Source Classifications:

(1) 18 AAC 50.300(c)(1) Prevention of Significant Deterioration (PSD) stationary source because it has the potential to emit a regulated air contaminant of more than 250 tons per year (TPY) in an attainment or unclassifiable area for that contaminant per 18 AAC 50.015.

Operating Permit Classifications:

(1) 18 AAC 50.325(b)(1) more than 100 TPY of a regulated air contaminant

(2) 18 AAC 50.325(b)(3) contains units subject to NSPS standards (40 CFR 60)

(3) 18 AAC 50.325(c) is a stationary source described in 18 AAC 50.300(c)(1) and AS 46.14.130(b)(4)

Section 3. Emission Unit Inventory and Requirement

[18 AAC 50.350(d)(2), 1/18/97]

Units listed in Table 1 have specific monitoring, recordkeeping, or reporting conditions in this permit. Unit descriptions and ratings are given for identification purposes only.

1. Label each emission unit listed in Table 1 with the unit ID in a conspicuous location, on or adjacent to the unit, within 90 days after the permit issue date.

Table 1 – Emission Unit Inventory [1]

ID	Unit Location	Unit Description	Installation/ Modification Date	Rating/size
Main Generators				
1	3049-1	Cooper LSV16GDT #1, DF-8 Fired	Pre 1980	3,000 kW
2	3049-2	Cooper LSV16GDT #2, DF-8 Fired	Pre 1980	3,000 kW
3	3049-3	Cooper LSV16GDT #3, DF-8 Fired	Pre 1980	3,000 kW
4	3049-4	Cooper LSV16GDT #4, DF-8 Fired	Pre 1980	3,000 kW
5	3049-5	Cooper LSV16GDT #5, DF-8 Fired	10/1988	3,000 kW
6	3049-6	Cooper LSV16GDT #6, DF-8 Fired	10/1988	3,000 kW
Firewater Pump Engines				
13	3057	Firewater Pump (Detroit #5)	10/1988	186 hp
14	3057	Firewater Pump (Detroit #6)	10/1988	230 hp
15	4011	Firewater Pump	2004	175 hp
16	3051	Firewater Pump Unit #1	2004	160 hp
17	3051	Firewater Pump Unit #2	2004	160 hp
18	84-110	Firewater Pump Unit #1	2005	1,100 hp
19	84-110	Firewater Pump Unit #2	2005	1,100 hp
20	523	Firewater Pump Unit #1	2005	1,100 hp
21	523	Firewater Pump Unit #2	2005	1,100 hp
22	523	Firewater Pump Unit #3	2005	1,100 hp
23	523	Firewater Pump Unit #4	2005	1,100 hp
Backup Generators				
25	3051	EB Generator	1/1981	30 kW
27	76-558	EB Generator (Mitsubishi)	1/1987	40 kW
30	3049-7	EB Generator (Caterpillar)	1/1990	225 kW
32	4014-1	EB Generator (Mitsubishi #1)	1/1991	350 kW
33	4014-2	EB Generator (Mitsubishi #2)	1/1991	350 kW
34	600	EB Generator (Caterpillar)	1/1991	283 kW
35	609	EB Generator	1/1995	100 kW
36	754	EB Generator	1995	400 kW
39	110	EB Generator	1/1996	350 kW
40	628	EB Generator	1/1998	275 kW
41	718	EB Generator (Motor Works)	1/2000	50 kW
42	775	EB Generator (Caterpillar)	1/2001	500 kW
44	76-524	EB Generator (ILS Unit #1)	2005	600 kW
45	76-522	EB Generator (ILS Unit #2)	2005	600 kW
Emergency Barrier Engines				
46	74-041-1	Aircraft Barrier Engine (Wisconsin V465 #1), MUR Fired	1/2000	65.9 hp

[1] Insignificant emission units are not listed herein.

ID	Unit Location	Unit Description	Installation/ Modification Date	Rating/size
47	74-041-2	Aircraft Barrier Engine (Wisconsin V465 #2), MUR Fired	1/2000	65.9 hp
48	74-041-3	Aircraft Barrier Engine (Wisconsin V465 #3), MUR Fired	1/2000	65.9 hp
49	74-041-4	Aircraft Barrier Engine (Wisconsin V465 #4), MUR Fired	1/2000	65.9 hp
50	74-041-1	Aircraft Barrier Engines, MUR Fired	2005	65.9 hp
51	74-041-2	Aircraft Barrier Engines, MUR Fired	2005	65.9 hp
52	74-041-3	Aircraft Barrier Engines, MUR Fired	2005	65.9 hp
53	74-041-4	Aircraft Barrier Engines, MUR Fired	2005	65.9 hp
Boilers				
67	599	Boiler	2004	2.79 MMBtu/hr
68	755	Boiler	1/1995	2.05 MMBtu/hr
74	600	Boiler (Cleaver Brooks), DF-8 and Used oil Fired	1/1998	8.369 MMBtu/hr
78	755	Boiler, DF-8 and Used oil Fired	2004	2.79 MMBtu/hr
79	597	Boiler (#1)	2005	2.01 MMBtu/hr
80	597	Boiler (#2)	2005	2.01 MMBtu/hr
81	754	Boiler	2004	2.65 MMBtu/hr
82	754	Boiler	2004	2.65 MMBtu/hr
Miscellaneous				
84	619	Solid Waste Incinerator	2005	750 lb/hr
85	NA	Solid Waste Landfill	1992	93,750 yd^3

Section 4. Emission Fees

2. Assessable Emissions. The Permittee shall pay to the Department an annual emission fee based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air contaminant that the stationary source emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of

2.1 the stationary source's assessable potential to emit of 3802 TPY; or

2.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the Department, when demonstrated by

a. an enforceable test method described in 18 AAC 50.220;

b. material balance calculations;

c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or

d. other methods and calculations approved by the Department**.**

[18 AAC 50.346(a)(1), 5/03/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

3. Assessable Emission Estimates. Emission fees will be assessed as follows:

3.1 no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795**;** the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

3.2 if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in condition 2.1.

[18 AAC 50.346(a)(1), 5/03/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

Section 5. Unit-Specific Requirements[2]

Industrial Processes and Fuel-Burning Equipment

4. Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Unit ID(s) 1-82 listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:

a. more than 20 percent for a total of more than three minutes in any one hour[3];

[18 AAC 50.055(a)(1), 1/18/97 and 18 AAC 50.350(d)(1)(C), 6/21/98]
[40 C.F.R. 52.70, 7/01/01]

b. more than 20 percent averaged over any six consecutive minutes[4].

[18 AAC 50.055(a)(1) & 50.346(c), 5/03/02 and 18 AAC 50.350(d)(1)(C), 6/21/98]

4.1 For Unit ID(s) 1-6, 18-23, 44, 45, 50-53, 67, 68, 74 and 78-82 monitor, record and report in accordance with Section 6.

4.2 For Unit ID(s) 13-17, 25, 27, 30, 32-36, 39, 40, 41, 42, and 46-49 as long as they do not exceed the applicable limits in condition(s) 20.1a, 20.1b, 20.1c, 20.1d, and 20.1e monitoring shall consist of an annual compliance certification with the opacity standard under condition 59.

[18 AAC 50.350(g) - (i) & 50.346(c), 5/03/02]

5. Particulate Matter. The Permittee shall not cause or allow particulate matter emitted from Unit ID(s) 1-82 listed in Table 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.346(c), 5/03/02; 18 AAC 50.055(b)(1), 1/18/97 and 18 AAC 50.350(d)(1)(C), 6/21/98]

5.1 Conduct a particulate matter emission test for Unit IDs 1-6, 13-17, 25, 27, 30, 32-36, 39, 40, 41, 42, and 46-53 in accordance with source test requirements in Section 12, or provide the Department with vendor guarantee that the emission units will meet the grain loading standard according to the following schedule:

a. Within 180 days after initially firing used oil blend, for any one of Unit IDs 1-6

(i) firing used oil blend at the highest blending ratio, and

(ii) firing DF-8 fuel;

[2] Conditions 4, 5 and 7 are not applicable to units until such time as the units are installed and operational at the base.

[3] For purposes of this permit, the "more than three minutes in any one hour" criterion in this condition and conditions 7.a and 28.1 will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/03/02 is adopted by the U.S. EPA.

[4] The six-minute average standard is enforceable only by the state until 18 AAC 50.055(a)(1), dated May 3, 2002, is approved by U.S. EPA into the SIP at which time this standard becomes federally enforceable.

b. Within 180 days after permit issue date for existing Unit IDs 13-14, 25, 27, 30, 32-36, 39, 40, 41, 42 and 46-49;

c. Within 180 days of initial startup of new Unit IDs 15-17 and 50-53;

5.2 Fuel Blending Requirement for Used oil burning:

a. for Unit IDs 1- 6,

(i) use the WOTEC[5] system to blend used oil at the highest blending ratio at which the unit was source tested and no more than 1 part used oil with 5 parts DF8 oil; and

(ii) record the blend ratio setting in the WOTEC system each time the setting is changed and submit the records upon request,

b. for Unit IDs 74 and 78,

(i) blend the used oil in the ratio of 1 part used oil with 2 parts DF-8 oil;

(ii) record the blend ratio each time used oil is added to the fuel tank and submit the records upon request.

5.3 For Unit ID(s) 1-6, 18-23, 44, 45, 50-53, 67, 68, 74 and 78-82 monitor, record and report in accordance with Section 6.

5.4 For Unit ID(s) 13-17, 25, 27, 30, 32-36, 39, 40, 41, 42, 46-49, as long as they do not exceed the limits in condition(s) 20.1a, 20.1b, 20.1c, 20.1d, and 20.1e, monitoring shall consist of an annual compliance certification with the particulate matter standard under condition 59.

5.5 The permittee may burn used oil in Unit IDs 1-6, 74 and 78 as follows:

a. The used oil must be generated on site and the Federal notification requirements must have been met. The permittee may not accept used oil from another person unless the applicable requirements of 18 AAC 62.410 are met, and a permit amendment has been requested;

b. The used oil or blend of used oil and distillate oil may not contain constituents exceeding the quantities in the table below. To ensure compliance, the permittee shall

(i) Analyze an initial composite sample of each batch of used oil using SW-846 test method for arsenic, lead, cadmium, chromium, total halogens, flash point, polychlorinated biphenyls (PCBs) and sulfur;

[5] WOTEC: Waste Oil to Energy Converter Filtration System.

(ii) Add JP-8 to the blended fuel until such time as the fuel meets the specifications in Table 2; and

(iii) Maintain records showing the blending ratio, the results of each analysis and submit the records with the stationary source's EPA ID number AK 9570028705 when requested.

Table 2 - Specifications for used oil or used oil and distillate oil blend

Blended On-site used oil	Concentrations may not exceed
Arsenic	5 ppm
Cadmium	2 ppm
Chromium	10 ppm
Lead	100 ppm
Total Halogens	1000 ppm (Permittee may burn used oil with a concentration of total halogens up to 4000 ppm only if permittee can show that the used oil does not contain significant concentrations of any of the halogenated compounds listed in 40 C.F.R. Part 261, Appendix VIII)
Flash Point	>100 degrees Fahrenheit
Sulfur	0.3% by weight

[18 AAC 50.350(d)(1)(D) & 18 AAC 50.350(g) – (i), 1/18/97]
[Permit 9325-AA007, Condition 15, 09/21/94]
[18 AAC 50.346(c) & 50.350(g) – (i), 5/03/02]

6. Sulfur Compound Emissions. In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from 1-82 to exceed 500 ppm averaged over three hours.

[18 AAC 50.346(c), 5/03/02; 18 AAC 50.055(c), 1/18/97; and 18 AAC 50.350(d)(1)(C), 6/21/98]

6.1 The Permittee shall do one of the following for each shipment of fuel oil:

a. If the fuel grade requires a sulfur content less than 0.5 percent by weight, keep receipts that specify the fuel grade and amount; or

b. If the fuel grade does not require a sulfur content less than 0.5 percent by weight, keep receipts that specify the fuel grade and amount and

(i) test the fuel for sulfur content; or

(ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.

6.2 Fuel testing under condition 6.1 must follow an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the Department.

6.3 If a load of fuel contains greater than 0.75 percent sulfur by weight, the Permittee shall calculate SO_2 emissions in ppm using either Section 16 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

6.1 The Permittee shall report as follows:

a. If SO_2 emissions calculated under condition 6.3 exceed 500 ppm, the Permittee shall report under condition 56. When reporting under this condition, include the calculation under Section 16.

b. The Permittee shall include in the report required by condition 58

(i) a list of the fuel grades received at the stationary source during the reporting period;

(ii) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur of each shipment; and

(iii) for fuel with a sulfur content greater than 0.75 percent, the calculated SO_2 emissions in ppm.

[18 AAC 50.346(c) & 350(g) - (i), 5/03/02]

Incinerator(s) Subject to State Emission Standards, Unit ID(s) 84

7. Incinerator Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, through the exhaust of Unit ID(s) 84, to reduce visibility by any of the following:

a. more than 20 percent for a total of more than three minutes in any one hour[7];

[18 AAC 50.050(a)(2), 1/18/97]

b. more than 20 percent averaged over any six consecutive minutes[8].

[18 AAC 50.050(a), 5/03/02]

7.1 For Unit ID(s) 84 as long as the limit in condition 20 is not exceeded, monitoring shall consist of an annual compliance certification with the opacity standard under condition 59.

[18 AAC 50.350(g) - (i), 5/03/02]

[7] See Footnote 3.

[8] The six-minute average standard is enforceable only by the state until 18 AAC 50.050(a), as revised May 3, 2002, is approved by U.S. EPA into the State Implementation Plan at which time this standard becomes federally enforceable.

Municipal Solid Waste Landfills Subject to NSPS Subpart WWW and 18 AAC 50.052

8. **NSPS Subpart WWW Requirements.** For Unit ID 85, the Permittee shall submit an amended design capacity report to the U.S. EPA Administrator and to the Department providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams or 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in §60.758(f).

[40 CFR 60.757, 7/1/01]
[18 AAC 50.040(a)(2)(II), 50.052, and 50.350(e)(3), 1/18/97]

Section 6. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

Liquid Fuel Fired and Incinerator Units (Unit IDs 1-6, 18-23, 44, 45, 50-53, 67, 68, 74 and 78-82)

9. Visible Emissions Monitoring. The Permittee shall observe the exhaust of Unit ID(s) 1-6, 18-23, 44, 45, 50-53, 67, 68, 74 and 78-82, for visible emissions using either the Method 9 Plan under condition 9.1 or the Smoke/No-Smoke Plan under condition 9.2. The Permittee may change visible-emissions plans for a unit at any time unless prohibited from doing so by condition 9.3.

[18 AAC 50.350(g), 1/18/97 & 50.346(c), 5/03/02]

9.1 **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

a. First Method 9 Observation. Observe exhaust for 18 minutes within six months after the issue date of this permit or within 14 calendar days after changing from the Smoke/No-Smoke Plan of condition 9.2, whichever is later.

b. Monthly Method 9 Observations. After the first Method 9 observation, perform 18-minute observations at least once in each calendar month that a unit operates.

c. Semiannual Method 9 Observations. After observing emissions for three consecutive operating months under condition 9.1b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, observe emissions at least semiannually for 18 minutes.

Semiannual observations must be taken between four and seven months after the previous set of observations.

d. Annual Method 9 Observations. After at least two semiannual 18-minute observations, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, observe emissions at least annually.

Annual observations must be taken between 10 and 13 months after the previous observations and must include at least three 18-minute sets of observations.

e. Increased Method 9 Frequency. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that unit to at least monthly intervals, until the criteria in condition 9.1c for semiannual monitoring are met.

9.2 **Smoke/No Smoke Plan.** Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

a. Initial Monitoring Frequency. Observe the exhaust during each calendar day that a unit operates.

b. Reduced Monitoring Frequency. After the unit has been observed on 30 consecutive operating days, if the unit operated without visible smoke in the exhaust for those 30 days, then observe emissions at least once in every calendar month that a unit operates.

c. Smoke Observed. If smoke is observed, either begin the Method 9 Plan of condition 9.1 or perform the corrective action required under condition 9.3.

9.3 **Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of condition 9.2, then the Permittee shall either follow the Method 9 plan of condition 9.1 or

a. initiate actions to eliminate smoke from the unit within 24 hours of the observation;

b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and

c. after completing the actions required under condition 9.3a,

(i) take Smoke/No Smoke observations in accordance with condition 9.2

(A) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and

(B) continue as described in condition 9.2b; or

(ii) if the actions taken under condition 9.3a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of condition 9.3c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under condition 9.2a.

10. Visible Emissions Recordkeeping. The Permittee shall keep records in accordance with this condition 10.

[18 AAC 50.350(h) & 50.346(c), 5/03/02]

10.1 If using the Method 9 Plan of condition 9.1

a. the observer shall record

(i) the name of the stationary source, emission unit and location, stationary source type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet in Section 15;

(ii) the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;

(iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation in Section 15, and

(v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;

b. to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;

c. calculate and record the highest 18-consecutive-minute averages observed.

10.2 If using the Smoke/No Smoke Plan of condition 9.2, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. from Table 1, the ID of the unit observed;

c. whether visible emissions are present or absent in the exhaust;

d. a description of the background to the exhaust during the observation;

e. if the unit starts operation on the day of the observation, the startup time of the unit;

f. name and title of the person making the observation; and

g. operating rate (load or fuel consumption rate).

11. Visible Emissions Reporting. The Permittee shall report visible emissions as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/03/02]

11.1 include in each Operating Report under condition 58

a. which visible-emissions plan of condition 9 was used for each unit; if more than one plan was used, give the time periods covered by each plan;

b. for each unit under the Method 9 Plan,

(i) copies of the observation results (i.e. opacity observations) for each unit that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department; and

(ii) a summary to include:

(A) number of days observations were made;

(B) highest six-minute average observed; and

(C) dates when one or more observed six-minute averages were greater than 20 percent;

c. for each unit under the Smoke/No Smoke Plan, the number of days that Smoke/No Smoke observations were made and which days, if any, that smoke was observed; and

d. a summary of any monitoring or recordkeeping required under conditions 9 and 10 that was not done;

11.2 report under condition 56:

a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and

b. if any monitoring under condition 9 was not performed when required, report within three days of the date the monitoring was required.

12. Particulate Matter Monitoring for Diesel Engines. The Permittee shall conduct source tests on diesel engines (Unit IDs 1-6, 18-23, 44, 45, 50-53), to determine the concentration of particulate matter (PM) in the exhaust of a unit in accordance with this condition 12.

12.1 Within six months of exceeding the criteria of condition 12.2a or 12.2b, either

a. conduct a PM source test according to requirements set out in Section 12; or

b. make repairs so that emissions no longer exceed the criteria of condition 12.2; to show that emissions are below those criteria, observe emissions as described in condition 9.1 under load conditions comparable to those when the criteria were exceeded.

12.2 Conduct the test according to condition 12.1 if

a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or

b. for a unit with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.

12.3 During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.

12.4 The automatic PM source test requirement in conditions 12.1 and 12.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

13. Particulate Matter Recordkeeping for Diesel Engines. Within 180 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameter(s) of Unit ID(s) 1-6, 18-23, 44, 45, 50-53. Report the stack diameter(s) in the next Operating Report under condition 58.

14. Particulate Matter Reporting for Diesel Engines. The Permittee shall report as follows:

14.1 Report under condition 56

a. the results of any PM source test that exceeds the PM emissions limit; or

b. if one of the criteria of condition 12.2 was exceeded and the Permittee did not comply with either condition 12.1a or 12.1b, this must be reported by the day following the day compliance with condition 12.1 was required;

14.2 Report observations in excess of the threshold of condition 12.2b within 30 days of the end of the month in which the observations occur;

14.3 In each Operating Report under condition 58, include

a. the dates, Unit ID(s), and results when an observed 18-minute average was greater than an applicable threshold in condition 12.2;

b. a summary of the results of any PM testing under condition 12; and

c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of condition 12.2, if they were not already submitted.

[18 AAC 50.350(g), (h) and (i), 1/18/97 & 50.346(c), 5/03/02]

15. Particulate Matter Monitoring for Boilers and Heaters. The Permittee shall conduct source tests on Unit ID(s) 67, 74 and 78-82 to determine the concentration of PM in the exhaust as follows:

15.1 Conduct a PM source test according to the requirements set out in Section 12 no later than 90 calendar days after any time corrective maintenance fails to eliminate visible emissions greater than the 20 percent opacity threshold for two or more 18-minute observations in a consecutive six month period.

15.2 During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run.

15.3 The PM source test requirement in condition 15.1 is waived for an emission unit if:

a. a PM source test during the most recent semiannual reporting period on that unit shows compliance with the PM standard since permit issuance, or

b. if a follow-up visible emission observation conducted using Method-9 during the 90 days shows that the excess visible emissions described in condition 9.1e no longer occur.

16. Particulate Matter Recordkeeping for Boilers and Heaters. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under conditions 15.1 and 15.2.

17. Particulate Matter Reporting for Boilers and Heaters. The Permittee shall report as follows:

17.1 In each Operating Report required by condition 58, include

a. the dates, Unit ID(s), and results when an 18-minute opacity observation was greater than the applicable threshold criterion in 9.1e.

b. a summary of the results of any PM testing and visible emissions observations conducted under conditions 15.1 and 15.2.

17.2 Report as excess emissions, in accordance with condition 56, any time the results of a source test for PM exceeds the PM emission limit stated in condition 5.

[18 AAC 50.350(g)(h) and (i), 1/18/97]

Section 7. Owner Requested Limits

18. Fuel Specifications.

18.1 The permittee shall burn only DF-8[9] fuel that has the specifications of diesel fuel in all units except Unit IDs 1-6, 46-53, 74 and 78;

18.2 The permittee shall burn only MUR[10] fuel that has the specifications of gasoline in Unit IDs 46-53;

18.3 The permittee may burn used oil in Unit IDs 1-6, 74 and 78 as long as the used oil complies with the requirements set out in conditions 5.5a-5.5b;

18.4 Maintain records showing the fuels used in each unit and submit the records when requested.

19. Fuel Sulfur Content. Limit fuel sulfur content of fuel oil burned in all fuel burning equipment to no more than 0.3% by weight.

19.1 Monitoring – Obtain a statement of certification from the fuel supplier showing that all fuel oil delivered to the stationary source complies with condition 18. If a certificate is not available from the supplier, analyze a representative sample of the fuel for each shipment delivered to the stationary source to determine the sulfur content using an approved ASTM method such as D975-94, DD3120-92, D4152-90, D2622-91 and D396-92;

19.2 Recordkeeping and Reporting –

a. Report in accordance with condition 56, upon receipt of fuel that does not meet the requirements of condition 18;

b. Keep records of the statements of certification and all test results and calculations required under condition 19.1. Attach copies of the records with the Operating Report required by condition 58.

[9] DF-8 – Air Force designation for JP-8 turbine fuel used in non-aircraft applications
[10] MUR- Air Force designation for motor vehicle unleaded gasoline

20. Operating Hour Limits.

20.1 Limit hours of operation as follows:

a. For each of the firewater pump engines, Unit IDs 15-23 limit hours of operation to no more than 500 hours in any 12 consecutive month period;

b. For each of the firewater pump engines, Unit IDs 13 and 14, limit hours of operation to no more than 1000 hours in any 12 consecutive month period;

c. For each of the emergency backup generators, Unit IDs 30, 32-34, 36, 39 and 40, limit hours of operation to no more than 300 hours in any 12 consecutive month period;

d. For each of the emergency backup generators, Unit IDs 25, 27, 35, 41, 42, 44 and 45 limit hours of operation to no more than 500 hours in any 12 consecutive month period;

e. For each of the aircraft barrier engines, Unit IDs 46-53, limit hours of operation to no more than 500 hours in any 12 consecutive month period;

f. For the solid waste incinerator, Unit ID 84, limit hours of operation to no more than 1,000 hours in any 12 consecutive month period.

20.2 Monitoring and Recordkeeping - Monitor and record the hours of operation for each unit subject to operating limits. Calculate and record the hours of operation for each 12 consecutive month period,

20.3 Reporting - Report under condition 58, the monthly and 12 consecutive month hours of operation for each unit subject to operating limits.

21. Non Road Engines

21.1 No less than once each calendar year, examine each non road engine[11] to determine whether the units continue to qualify as non road engines in accordance with the definition in 40 CFR 89.2.

21.2 If the permittee identifies a unit that has lost its non road engine status, then the permittee shall report within 60 days after discovery under condition 56 and request permit revisions to incorporate the applicable monitoring and recordkeeping requirements for that unit as a stationary emission unit.

[11] A non road engine is a transportable internal combustion unit that is on site for no more than 12 consecutive months or seasonally for no more than 24 months. Transportability includes, but not limited to wheels, skids, carrying handles, dolly, trailer or platform. A complete definition of a non road engine can be found in 40 CFR 89.2.

Section 8. Best Available Control Technology Limits

The Permittee shall comply with best available control technology limits and the monitoring, recording and reporting requirements as set out below:

Nitrogen Dioxide BACT Requirements

22. Operate with good combustion practices the following units to minimize NO_X emissions:

a. the Cooper Bessemer diesel engine Unit IDs. 5 and 6;

b. firewater pump engines, Unit IDs 13, 14, and 16-23;

c. emergency backup generators Unit IDs 44 and 45;

d. aircraft barrier engines, Unit IDs 50-53; and

e. boilers, Unit IDs 78-82 and incinerator Unit ID 84.

Carbon Monoxide BACT Requirements

23. Operate with good combustion practices the following units:

a. the Cooper Bessemer diesel engine Unit IDs. 5 and 6; and

b. the firewater pump engines Unit IDs. 13 and 14.

Sulfur Dioxide BACT Requirements

24. Limit the sulfur in JP-8 fuel oil burned in Unit IDs 16-23, 44, 45, 50-53, 78-82, and 84 to no more than 0.3 percent by weight;

24.1 Monitor, record and report in accordance with conditions 19.1 and 19.2.

[18 AAC 50.320(a)(2), 1/18/97]

Section 9. Stationary Source-Wide Requirements

25. NESHAPs Applicability Determinations. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R. 63.1(b). If a source becomes affected by an applicable subpart of 40 C.F.R. 63, Permittee shall comply with such standard by the compliance date established by the Administrator in the applicable subpart.

25.1 The Permittee must keep a record of the applicability determination on site for a period of 5 years after the determination or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the Permittee believes the source is unaffected. The analysis (or other information) must be sufficiently detailed to allow the Department to make a finding about the source's applicability status with regard to the relevant standard or other requirement.

[40 C.F.R. 63.1(b), 63.6(c)(1) & 63.10(b), 4/5/02]
[18 AAC 50.350(h), 5/03/02; 18 AAC 50.040(c)(1)(A) & (E), 6/1/02]

26. Notwithstanding the regulations set forth in 18 AAC 50.300(h), the permittee shall notify the Department, in accordance with the following conditions, within 7 days after:

26.1 Installing a stationary emission unit at the source that is not listed in Table 1 or

26.2 Making a physical or operational change to a unit listed in Table 1 that would cause a net increase in the emissions of a regulated air contaminant;

26.3 Track and report in the Operating Report required by condition 58, the use of permanent and temporary non-road engines installed after the final issue date of this permit that have a size rating greater than 400 Brake Horsepower. Include in the report: the engine’s size, serial number and tag number if assigned, and the dates that the engine arrived at the facility, was initially started up on-site, finally shut down on-site, or was removed from the facility

[18 AAC 50.010), 5/03/02]

Section 10. Insignificant Emission Units

This section contains the requirements that the Permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant emission units at the stationary source[12]. This section also specifies the testing, monitoring, recordkeeping, and reporting for insignificant emission units that the Department finds necessary to ensure compliance with the applicable requirements. Insignificant emission units are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.290 does not apply to these emission units.

27. For Unit ID(s) 13-17, 25, 27, 30, 32-36, 39, 40, 41, 42, and 46-49 listed in Table 1 and for units at the stationary source that are insignificant as defined in 18 AAC 50.335(q)-(v) that are not listed in this permit, the following apply:

27.1 The Permittee shall submit the compliance certifications of condition 59 based on reasonable inquiry;

27.2 The Permittee shall comply with the requirements of condition 38;

27.3 The Permittee shall report in the Operating Report required by condition 58 if a unit was previously determined to be insignificant because its actual emissions were less than the thresholds of 18 AAC 50.335(r) and actual emissions become greater than any of those thresholds;

27.4 No other monitoring, recordkeeping or reporting is required, except as provided in conditions 20.1a through 20.1f.

[18 AAC 50.346(b)(1), 5/03/02]

28. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by any of the following:

28.1 more than 20 percent for a total of more than three minutes in any one hour[13];

[18 AAC 50.050(a)(2) & 50.055(a)(1), 1/18/97]
[40 C.F.R. 52.70, 7/01/01]

28.2 more than 20 percent averaged over any six consecutive minutes[14].

[18 AAC 50.050(a) & 50.055(a)(1), 5/03/02]

29. The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[12] Units that lose its designation as non road engines and become stationary sources will comply with the requirement
[13] See Footnote 3.
[14] See Footnote 4.

[18 AAC 50.055(b)(1), 1/18/97]

30. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

Section 11. Generally Applicable Requirements

31. Asbestos NESHAP. The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(3), 8/15/02 & 50.350(d)(1)(A), 1/18/97]
[40 C.F.R. 61, Subparts A & M, and Appendix A, 7/1/01]

32. Refrigerant Recycling and Disposal. The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F. The Permittee shall comply with prohibitions during maintenance and disposal of refrigerants listed under 40 C.F.R. 82.154 and comply with required practices in the disposal of appliances listed under 40 C.F.R. 82.156.

[18 AAC 50.040(d), 8/15/02 & 50.350(d)(1)(A), 1/18/97]
[40 C.F.R. 82, Subpart F, 7/1/01]

33. Good Air Pollution Control Practice. The Permittee shall do the following for Unit IDs 1-6, 18-23, 44, 45, 50-53, 67, 68, 74 and 78-82

a. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

b. Keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format;

c. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030 & 50.346(b)(2), 5/03/02 & 18 AAC 50.350(f)(2) & (3), 1/18/97]

34. Dilution. The Permittee shall not dilute emissions with air to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

35. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.346(c), 5/03/02; 18 AAC 50.045(d) & 50.350(g), 1/18/97 & 18 AAC 50.040(e), 8/15/02]

35.1 The Permittee shall keep records of

a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and

b. any additional precautions that are taken

(i) to address complaints described in condition 35.1 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

[18 AAC 50.350(h), 5/03/02]

35.2 The Permittee shall report according to condition 38.

[18 AAC 50.350(i), 5/03/02]

36. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the Department.

[18 AAC 50.055(g), 1/18/97]

37. Open Burning. The Permittee shall comply with the following requirements when conducting open burning at the stationary source.

37.1 **General Requirements**. Except when conducting open burning under 37.7, 37.8, or 37.9, a person conducting open burning shall comply with the limitations of 37.2 - 37.6 and shall ensure that

a. the material is kept as dry as possible through the use of a cover or dry storage;

b. before igniting the burn, non-combustibles are separated to the greatest extent practicable;

c. natural or artificially induced draft is present;

d. to the greatest extent practicable, combustibles are separated from grass or peat layer;

e. combustibles are not allowed to smolder; and

f. sufficient written records are kept to demonstrate that the Permittee complies with the limitations in this condition. Upon request of the Department, submit copies of the records.

37.2 **Black Smoke Prohibited**. Except for firefighter training conducted under 37.8 or 37.9, open burning of asphalts, rubber products, plastics, tars, oils, oily wastes, contaminated oil cleanup materials, or other materials in a way that gives off black smoke is prohibited without written Department approval. Department approval of open burning as an oil spill response countermeasure is subject to the Department's *In Situ Burning Guidelines for Alaska*, adopted by reference in 18 AAC 50.035. Open burning approved under this subsection is subject to the following limitations:

a. Open burning of liquid hydrocarbons produced during oil or gas well flow tests may occur only when there are no practical means available to recycle, reuse, or dispose of the fluids in a more environmentally acceptable manner;

b. The person who conducts open burning shall establish reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated; and

c. The Department will, in its discretion, as a condition of approval issued under this subsection, require public notice as described in 37.10.

37.3 **Toxic and Acid Gases and Particulate Matter Prohibited**. Open burning or incineration of pesticides, halogenated organic compounds, cyanic compounds, or polyurethane products in a way that gives off toxic or acidic gases or particulate matter is prohibited.

37.4 **Adverse Effects Prohibited**. Open burning of putrescible garbage, animal carcasses, or petroleum-based materials, including materials contaminated with petroleum or petroleum derivatives, is prohibited if it causes odor or black smoke that has an adverse effect on nearby persons or property.

37.5 **Air Quality Advisory**. Open burning is prohibited in an area if the Department declares an air quality advisory under 18 AAC 50.245, stating that burning is not permitted in that area for that day.

37.6 **Wood Smoke Control Areas**. Open burning is prohibited between November 1 and March 31 in a wood smoke control area identified in 18 AAC 50.025(b).

37.7 **Controlled Burning**. Controlled burning to manage forest land, vegetative cover, fisheries, or wildlife habitat, other than burning to combat a natural wildfire, requires written Department approval if the area to be burned exceeds 40 acres yearly. The Department will, in its discretion, require public notice as described in 37.10 of this section.

37.8 **Firefighter Training: Structures**. A fire service may open burn structures for firefighter training without ensuring maximum combustion efficiency under the following circumstances:

a. Before igniting the structure, the fire service shall

(i) obtain Department approval for the location of the proposed firefighter training; approval will be based on whether the proposed open burning is likely to adversely affect public health in the neighborhood of the structure;

(ii) visually identify materials in the structure that might contain asbestos, test those materials for asbestos, and remove all materials that contain asbestos;

(iii) ensure that the structure does not contain

(A) putrescible garbage;

(B) electrical batteries;

(C) stored chemicals such as fertilizers, pesticides, paints, glues, sealers, tars, solvents, household cleaners, or photographic reagents;

(D) stored linoleum, plastics, rubber, tires, or insulated wire;

(E) hazardous waste;

(F) lead piping;

(G) plastic piping with an outside diameter of four inches or more; or

(H) urethane or another plastic foam insulation;

(iv) provide public notice consistent with 37.10; and

(v) ensure that a fire-service representative is on-site before igniting the structure;

b. the fire service shall ignite and conduct training on only one main structure and any number of associated smaller structures at a time; examples of associated smaller structures are garages, sheds, and other outbuildings; and

c. the fire service shall respond to complaints in accordance with 37.11.

37.9 **Firefighter Training: Fuel Burning**. Unless a greater quantity is approved by the Department, a fire service may open burn up to 250 gallons of uncontaminated fuel daily and up to 600 gallons yearly for firefighter training without ensuring maximum combustion efficiency. To conduct this training without prior written Department approval, the fire service shall

a. provide public notice consistent with 37.10 before burning more than 20 gallons of uncontaminated fuel, unless waived in writing by the Department; and

b. respond to complaints in accordance with 37.11.

37.10 **Public Notice**. A person required to provide public notice of open burning shall issue the notice through local news media or by other appropriate means if the area of the open burning does not have local news media. The public notice must be issued as directed by the Department and must

a. state the name of the person conducting the burn;

b. provide a list of material to be burned;

c. provide a telephone number to contact the person conducting the burn before and during the burn;

d. for a surprise fire drill, state

(i) the address or location of the training; and

(ii) the beginning and ending dates of the period during which a surprise fire drill may be conducted (this period may not exceed 30 days); and

e. for open burning other than a surprise fire drill, state the expected time, date, and location of the open burning.

37.11 **Complaints**. A person required to provide public notice of open burning shall

a. make a reasonable effort to respond to complaints received about the burn;

b. keep, for at least 30 days, a record of all complaints received about the burn, including to the extent feasible

(i) the name, address, and telephone number of each person who complained;

(ii) a short summary of each complaint; and

(iii) any action the person conducting the open burning took to respond to each complaint; and

c. upon request, provide the Department with a copy of the records kept under 37.11b.

[18 AAC 50.065, 1/18/97& 50.350(g) – (i), 5/03/02]

38. Air Pollution Prohibited. No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.346(a)(2), 5/03/02; 18 AAC 50.110, 5/26/72; 18 AAC 50.040(e), 8/15/02]

38.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 56.

38.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 38.

38.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of condition 38; or

b. the Department notifies the Permittee that it has found a violation of condition 38.

38.4 The Permittee shall keep records of

a. the date, time, and nature of all emissions complaints received;

b. the name of the person or persons that complained, if known;

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of condition 38; and

d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

38.5 With each Operating Report under condition 58, the Permittee shall include a brief summary report which must include

a. the number of complaints received;

b. the number of times the Permittee or the Department found corrective action necessary;

c. the number of times action was taken on a complaint within 24 hours; and

d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

38.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

[18 AAC 50.346(a)(2) & 50.350(g) - (i), 5/03/02]

39. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235, causes emissions in excess of a technology-based emission standard[15] listed in condition 32, the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under condition 56 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under condition 56.

[18 AAC 50.235(a) & 50.350(f)(3), 1/18/97]

40. Permit Renewal. To renew this permit, the Permittee shall submit an application under 18 AAC 50.335 no sooner than **June 30, 2007** and no later than **June 30, 2008.**

[18 AAC 50.335(a), 1/18/97]

[15] *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Section 12. General Source Testing and Monitoring Requirements

41. Requested Source Tests. In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97 & 18 AAC 50.345(a) & (k), 5/03/02]

42. Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b) & 50.350(g), 1/18/97]

42.1 at a point or points that characterize the actual discharge into the ambient air; and

42.2 at the maximum rated burning or operating capacity of the emission unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

43. Reference Test Methods. The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

43.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.220(c)(1)(A) & 50.350(g), 1/18/97 & 18 AAC 50.040(a), 8/15/02]
[40 C.F.R. 60, 7/1/01]

43.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 8/15/02; 50.220(c)(1)(B) & 50.350(g), 1/18/97]
[40 C.F.R. 61, 7/1/01]

43.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 6/1/02; 18 AAC 50.220(c)(1)(C) & 50.350(g), 1/18/97]
[40 C.F.R. 63, 4/5/02]

43.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference 40 C.F.R 60, Method 9 and may use the form in Section 15 to record data.

[18 AAC 50.030, 5/03/02, 18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

43.5 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(4), 8/15/02 & 18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]
[40 C.F.R. 60, Appendix A, 7/1/01]

43.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.

[`18 AAC 50.035(b)(2), 7/2/00; 18 AAC 50.220(c)(1)(F) & 50.350(g), 1/18/97]
[40 C.F.R. 51, Appendix M, 7/1/99]

43.7 Source testing for emissions of ammonia must be conducted in accordance with methods and procedures for emissions of ammonia in accordance with Bay Area Air Quality Management District (BAAQMD) Source Test Procedure ST-1B, " Ammonia, Integrated Sampling" and EPA Method 350.3 "Ion Specific Electrode". The permittee may use an alternative method approved by the Department.

43.8 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.040(c)(19), 6/1/02 & 18 AAC 50.220(c)(2) & 50.350(g), 1/18/97]
[40 C.F.R. 63, Appendix A, Method 301, 4/5/02]

44. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emission unit type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3), 18 AAC 50.350(g), 1/18/97 & 18 AAC 50.990(88), 5/03/02]

45. Test Exemption. The Permittee is not required to comply with conditions 47, 48 and 49 when the exhaust is observed for visible emissions by the Method 9 Plan (condition 9.1) or Smoke/No Smoke Plan (condition 9.2).

[18 AAC 50.345(a), 5/03/02]

46. Test Deadline Extension. The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

[18 AAC 50.345(a) & (l), 5/03/02]

47. Test Plans. Except as provided in condition 45, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the source will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under condition 41 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

[18 AAC 50.345(a) & (m), 5/03/02]

48. Test Notification. Except as provided in condition 45, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.

[18 AAC 50.345(a) & (n), 5/03/02]

49. Test Reports. Except as provided in condition 45, within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in condition 52. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

[18 AAC 50.345(a) & (o), 5/03/02]

50. Continuous Monitoring Systems. If required by the terms and conditions of this permit, install, calibrate, conduct applicable continuous monitoring system performance specification tests listed in 40 C.F.R. 60, Appendix B, effective July 1, 1997, and certify test results; operate; and maintain air contaminant emissions and process monitoring equipment on the emission units as described herein. Submit monitoring equipment citing, operating, maintenance plans, and procedures for approval by the Department prior to installation.

For continuous emission monitoring systems, comply with each applicable monitoring system requirement, as listed in 40 C.F.R. 60.13, 60.19, 40 C.F.R. 60, Appendix A, Method 19, Appendix B, Performance Specifications 2 and 6, and Appendix F, and the *EPA Quality Assurance Handbook For Air Pollution Measurements Systems*, EPA/600 R094/038b, effective July 1, 1997. Attach to the Operating Report required by Condition 58: 1) a copy of each quarterly continuous emission monitoring system data assessment report for Quality Assurance Procedures conducted in accordance with 40 C.F.R. 60, Appendix F; and 2) a copy of each quarterly monitoring system's performance report in accordance with 40 C.F.R. 60.7.

[18 AAC 50.320(a)(2), 1/18/97]

51. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in conditions 5 and 29, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f) & 50.350(g), 1/18/97]

Section 13. General Recordkeeping, Reporting, and Compliance Certification Requirements

52. Certification. The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an Operating Report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.205 and 50.350(b)(3) & (j), 1/18/97; and 18 AAC 50.345(a) & (j), 5/03/02]

53. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send two copies of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with condition 52.

[18 AAC 50.350(i), 1/18/97]

54. Information Requests. The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200 & 50.350(b)(3), 1/18/97; and 18 AAC 50.345(a) & (i) & 50.350(g) – (i), 5/03/02]

55. Recordkeeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.350(h), 5/03/02]

[40 C.F.R. 60.7(f), Subpart A, 7/1/01]

55.1 Copies of all reports and certifications submitted pursuant to this section of the permit; and

55.2 Records of all monitoring required by this permit, and information about the monitoring including:

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

b. sampling dates and times of sampling or measurements;

c. the operating conditions that existed at the time of sampling or measurement;

d. the date analyses were performed;

e. the location where samples were taken;

f. the company or entity that performed the sampling and analyses;

g. the analytical techniques or methods used in the analyses; and

h. the results of the analyses.

56. Excess Emissions and Permit Deviation Reports.

56.1 Except as provided in condition 38, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report

(i) emissions that present a potential threat to human health or safety; and

(ii) excess emissions that the Permittee believes to be unavoidable;

b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;

c. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in conditions 56.1c(ii) and 56.1c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under condition 56.1c(i); and

(iii) for failure to monitor, as required in other applicable conditions of this permit.

56.2 When reporting excess emissions, the Permittee must report using either the Department's on-line form, which can be found at http://www.state.ak.us/dec/dawq/aqm/eeform.pdf, or if the Permittee prefers, the form contained in Section 17 of this permit. The Permittee must provide all information called for by the form that is used.

56.3 When reporting a permit deviation, the Permittee must report using either the Department's on-line form, which can be found at http://www.state.ak.us/dec/dawq/aqm/eeform.pdf, or if the Permittee prefers, the form contained in Section 17 of this permit. The Permittee must provide all information called for by the form that is used.

56.4 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), & 50.350(i), 1/18/97; and 18 AAC 50.346(a)(3), 5/03/02]

57. NSPS and NESHAP Reports. The Permittee shall:

57.1 Attach to the Operating Report required by condition 58, copies of any NSPS and NESHAPs reports submitted to the U.S. EPA Region 10 as required by condition 8; and

57.2 Upon request by the Department, notify and provide a written copy of any U.S. EPA-granted waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

[18 AAC 50.040, 8/15/02 & 18 AAC 350(i)(2), 1/18/97]
[40 C.F.R. 60 &. 61, 7/1/01]

58. Operating Reports. During the life of this permit, the Permittee shall submit to the Department one original and one copy of an Operating Report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

58.1 The Operating Report must include all information required by other conditions of this permit.

58.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 58.1, either

a. The Permittee shall identify

(i) the date of the deviation;

(ii) the equipment involved;

(iii) the permit condition affected;

(iv) a description of the excess emissions or permit deviation; and

(v) any corrective action or preventive measures taken and the date of such actions; or

b. When excess emissions or permit deviations have already been reported under condition 56 the Permittee may cite the date or dates of those reports.

58.3 The Operating Report must include a listing of emissions monitored under conditions 9.1e, and 9.2c, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

[18 AAC 50.346(b)(3), 5/03/02; 18 AAC 50.350(d)(4), 6/21/98 and 18 AAC 50.350(f)(3) & (i), 1/18/97]

59. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department one original and one copy of an annual compliance certification report as follows:

[18 AAC 50.350(j), 1/18/97]

59.1 For each permit term and condition set forth in Section 4 through Section 13, including terms and conditions for monitoring, reporting, and recordkeeping,

[18 AAC 50.350(d)(4), 6/21/98]

a. certify the compliance status over the preceding calendar year consistent with the monitoring required by this permit;

b. state whether compliance is intermittent or continuous;

c. briefly describe each method used to determine the compliance status; and

d. notarize the responsible official's signature.

[18 AAC 50.205, 1/18/97 & 50.345(a) & (j), 5/03/02]

59.2 In addition, submit a copy of the report directly to the U.S. EPA Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(j)(3), 1/18/97]

Section 14. Standard Conditions Not Otherwise Included in the Permit

60. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

60.1 An enforcement action;

60.2 Permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or

60.3 Denial of an operating-permit renewal application.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (c), 5/03/02]

61. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (d), 5/03/02]

62. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (e), 5/03/02]

63. Compliance with permit terms and conditions is considered to be compliance with those requirements that are

63.1 Included and specifically identified in the permit; or

63.2 Determined in writing in the permit to be inapplicable.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (b), 5/03/02]

64. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (f), 5/03/02]

65. The permit does not convey any property rights of any sort, nor any exclusive privilege.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (g), 5/03/02]

66. The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to

66.1 Enter upon the premises where a emission unit subject to the permit is located or where records required by the permit are kept;

66.2 Have access to and copy any records required by the permit;

66.3 Inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

66.4 Sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (h), 5/03/02]

Section 15. Visible Emissions Forms

Visible Emissions Field Data Sheet

Certified Observer: _____

Company &
Stationary source: _____

Location: _____

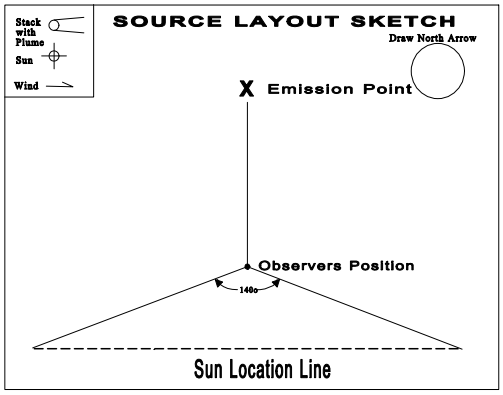
Test No.: _____ Date: _____

Emission Unit: _____

Production Rate/Operating Rate: _____

Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description: Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Visible Emissions Observation Record

Page ___ of ___

Company & Stationary source _____ Certified Observer_____

Test Number _____ Clock time_____

Date:		Visibility reduction every 15 Seconds (Opacity)				Steam Plume (check if applicable)		Comments
Hr	Min	0	15	30	45	Attached	Detached	

Additional information:

_____ _____

Observer Signature and Date Certified By and Date

Data Reduction:

Duration of Observation Period (minutes) _____ Duration Required by Permit (minutes)_____

Number of Observations _____ Highest Six –Minute Average Opacity (%)_____

Number of Observations exceeding 20 % _____

In compliance with three-minute aggregate opacity limit? (Yes or No) _____

In compliance with six-minute opacity limit? (Yes or No) _____

Average Opacity Summary

Set Number	Time Start—End	Opacity	
		Sum	Average

Section 16. SO_2 Material Balance Calculation

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A = 31,200 X [wt%S_{fuel}] = 31,200 X _____ = _____

B = 0.148 X [wt%S_{fuel}] = 0.148 X _____ = _____

C = 0.396 X [wt%C_{fuel}] = 0.396 X _____ = _____

D = 0.933 X [wt%H_{fuel}] = 0.933 X _____ = _____

E = B + C + D = _____ + _____ + _____ = _____

F = 20.9 – [vol%$_{dry}O_{2,\ exhaust}$] = 20.9 - _____ = _____

G = [vol%$_{dry}O_{2,\ exhaust}$] ÷ F = _____ ÷ _____ = _____

H = 1 + G = 1 + _____ = _____

I = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition 6.1. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%$_{dry}O_{2,\ exhaust}$) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if **wt%S_{fuel}** = 1.0%, then enter 1.0 into the equations, not 0.01, and if **vol%$_{dry}O_{2,\ exhaust}$** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c), 5/03/02]

Section 17. ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

United States Air Force
Company Name

Eareckson Air Station
Stationary source Name

Reason for notification:

❑ **Excess Emissions**
If you checked this box
Fill out section 1

❑ **Other Deviation from Permit Condition**
If you checked this box
fill out section 2

When did you discover the Excess Emissions or Other Deviation:
Date:__/__/__ Time:__:__

Section 1. Excess Emissions

(a) Event Information (Use 24-hour clock)**:**

	START Time**:** (hr:min):	**END** Time:	**Duration**
Date: _____	_____:_____	_____:_____	_____:_____
Date: _____	_____:_____	_____:_____	_____:_____
		Total:	_____:_____

(b) Cause of Event (Check all that apply)**:**

❑ START UP ❑ UPSET CONDITION ❑ CONTROL EQUIPMENT
❑ SHUT DOWN ❑ SCHEDULED MAINTENANCE ❑ OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Emission Unit Involved:

Identify each emission unit involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Unit ID No.	Unit Name	Description	Control Device

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

❑ YES ❑ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

❑ YES ❑ NO

Section 2. Other Permit Deviations

(a) Emission Unit Involved:

Identify each emission unit involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Unit ID No.	Unit Name	Description	Control Device

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: Signature: Date:

Alaska Department of Environmental Conservation

Air Permits Program

October 19, 2004

United States Air Force

Eareckson Air Station

STATEMENT OF BASIS

of the terms and conditions for

Permit No. 307TVP01

Prepared by Zeena Siddeek

Supervisor Jim Baumgartner

Revision 1 by Zeena Siddeek

Supervisor Bill Walker

April 1, 2005

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. 307TVP01.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. 307TVP01 contains information on Eareckson Air Station (EAS) emitting activities as provided in the Title V operating permit application.

The stationary source is owned by United States Air Force and operated by Chugach Eareckson Support Services. The United States Air Force is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 9711 National Security.

The Eareckson Air Station maintains an emergency airfield to receive and refuel diverted aircraft. Eareckson Air Station also supports other government and communication functions that include the AT&T/Alascom, Federal Aviation Administration, U.S. Navy and others. The stationary source consists of diesel engines, boilers, fuel tanks, incinerators, solid waste landfill, paint spray booth, surface coating operations, air stripper and woodworking operations. The stationary source has made several historical modifications including installation, removal and replacements of emission units since 1980.

EMISSION UNIT INVENTORY AND DESCRIPTION

Table 1 of Operating Permit No. 307TVP01 Revision 1 contains information on the significant emission units regulated by this permit as provided in the application and revisions submitted since submission of the application. The table is provided for informational and identification purposes only. Specifically, the emission unit rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

Section 2 of Operating Permit No. 307TVP01 Revision 1 contains emission information as provided in the Title V Permit Application. A summary of the potential to emit (PTE)[16] and assessable PTE as calculated by the Department from the stationary source is shown in the Table A.

[16] *Potential to Emit or PTE* means the maximum quantity of a release of an air contaminant, considering a stationary source's physical or operational design, based on continual operation of all sources within the stationary source for 24 hours a day, 365 days a year, reduced by the effect of pollution control equipment and approved state or federal limitations on the capacity of the stationary source's sources or the stationary source to emit an air contaminant, including limitations such as restrictions on hours or rates of operation and type or amount of material combusted, stored, or processed as defined in AS 46.14.990(21), effective 1/18/97.

Table A - Emissions Summary, in Tons Per Year (TPY)

Pollutant	PM-10	CO	NO_X	SO_2	VOC	HAPs	Total
PTE	**18**	**673**	**2678**	**340**	**90**	**2.6**	**3802**
Assessable PTE	**18**	**673**	**2678**	**340**	**90**	**2.6**	**3802**

The assessable PTE listed under condition 2.1 is the sum of the emissions of each individual regulated air contaminant for which the stationary source has the potential to emit quantities greater than 10 TPY. The emissions listed in Table A are estimates that do not create an enforceable limit to the stationary source.

For criteria pollutants, emissions are for all emission units listed in Table 1 of preliminary construction permit No. 307CP01 Revision 1 and units not listed in Table 1 but exist in the stationary source. Emissions estimates for engines, boilers and incinerators are based on AP-42 emission factors except for particulate matter (PM) emissions for the primary diesel engines. PM emissions for primary engines (Units 1-6) are based on source test results burning DF-8 fuel. There is no emission factor established for the engines burning used oil. Emissions from storage tanks were determined using the United States Environmental Protection Agency's (EPA's) TANKS program. Emissions from surface coating operations were determined from paint usage and operating man hours.

The applicant calculated HAP emissions for the Eareckson Air Station using AP-42 emission factors.

BASIS FOR REQUIRING AN OPERATING PERMIT

Section 2 of Operating Permit No. 307TVP01 Revision 1 lists the regulatory classifications of the stationary source Eareckson Air Station.

This stationary source is classified as a Prevention of Significant Deterioration (PSD) Major Stationary source as defined in 18 AAC 50.300(c)(1) because it has the potential to emit a regulated air contaminant of more than 250 TPY in an attainment or unclassifiable area for that contaminant. This stationary source requires an operating permit under i) 18 AAC 50.325(b)(1) because it has the potential to emit more than 100 TPY of a regulated air contaminant, ii)18 AAC 50.325(b)(3) because it contains emission units subject to NSPS standards 40 CFR 60, iii) 18 AAC 50.325(c) because it is a stationary source described in 18 AAC 50.300(c)(1) regulated under the authority of AS 46.14.130(b)(4).

Alaska regulations require operating permit applications to include identification of "regulated emission units." As applied to Eareckson Air Station, the state regulations require a description of:

i. Each incinerator, including a demonstration showing each requirement in 18 AAC 50.050, Incinerator Emissions Standards, that applies, under 18 AAC 50.335(e)(4)(A);

ii. Each emission unit regulated by a standard in 18 AAC 50.055, Industrial Processes and Fuel Burning Equipment, under 18 AAC 50.335(e)(4)(C);

iii. Each emission unit subject to a standard adopted by reference in 18 AAC 50.040 under 18 AAC 50.335(e)(2); and

iv. Emission units subject to requirements in an existing Department permit or permit issued under the former 18 AAC 50.400 or under 18 AAC 50.335(e)(5).

The emission units at Eareckson Air Station classified as "regulated emission units" according to the above Department regulations are listed in Table 1 of Operating Permit No. 307TVP01.

CURRENT AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

The most recent permit issued for this stationary source is Air Quality Control Permit-to-Operate No. 9325-AA007. Air Quality Control Construction Permit issued prior to January 18, 1997 also authorized construction activities in accordance to the program then in existence. This permit-to-operate includes all construction authorizations issued through September 21, 1994 since it was the latest permit issued to the stationary source before January 18, 1997. The limits in the 1994 permit were established without adequate permit review and are thus invalid. All stationary source-specific requirements established in Permit No. 9325-AA007 are included in the new Operating Permit as described in Table C.

Construction Permits

The Department issued a Preliminary Construction Permit No. 307CP01 to this stationary source on July 25, 2003. The Department proposes to public notice a preliminary Construction Permit No. 307CP01 Revision 1 concurrently with this Operating Permit No. 307TVP01 Revision 1. The stationary source-specific requirements proposed for Construction Permit No. 307CP01 Revision 1 are included in Operating Permit Revision 1 as described in Table C.

Title V Operating Permit Application History

The owner or operator submitted an application on December 4, 1997.

The owner or operator amended this application on February 20, 2002.

Additional information was received on January 27, 2003, March 17, 2003, June 11, 2003, August 15, 2003, August 20, 2003, September 18, 2003, February 4, 2004, April 22, 2004, May 19, 2004, May 25, 2004 and September 4, 2004.

COMPLIANCE HISTORY

The stationary source has operated at its current location prior to 1980. Review of the permit files for this stationary source, which includes the past inspection reports indicates a stationary source generally operating in compliance with its operating permit during the past 10 years.

STATIONARY SOURCE-SPECIFIC REQUIREMENTS CARRIED FORWARD

State of Alaska regulations in 18 AAC 50.350(d)(1)(D) require that an operating permit include each stationary source-specific requirement established in a prior construction permit. Table C below lists the construction permit condition that established a requirement in the Preliminary Construction Permit No. 307CP01 and the new condition in Operating Permit No. 307TVP01 that carries the old requirement into the new permit.

Table C - Comparison of Pre-January 18, 1997 Permit No. 9325-AA007 and Preliminary Construction Permit No. 307CP01 Conditions to Operating Permit No. 307TVP01 Conditions[17]

Condition No. in the previous permits		Description of Requirement	Permit No. 307TVP01 Condition Number	How condition was revised
Permit No. 307CP01	Permit No. 9325-AA007			
3	Exhibit A	Emission unit inventory and description	Section 3	Emission unit inventory in permit 9325-AA007 revised and updated. Brought forward from construction permit and revised to include all emission units at Eareckson Air Station.
4 and 5	None	Assessable emissions	Section 4	Estimated by the Department for all permitted emission units.
6	4 and Exhibit D	Fuel oil sulfur content	Section 7, 18	Brought forward from construction permit. Revised fuel sulfur limit.
7, 8 and 9	5, Exhibits A, A-2 and B	Operating limits, monitoring and recordkeeping of diesel engines	Section 7, 18	Brought forward from construction permit.
10	None	New Emission Units	26	Brought forward from construction permit.
11-13 and 41-45 and Section 13	Exhibits A,B, C and D	VE/PM standards, recordkeeping and reporting	Section 5, Section 6, and Section 10	Subsumed into stationary source wide requirements and standard conditions for PM source testing
14	Exhibit D	500 ppm SO_2 standards	6	Subsumed into stationary source wide requirements and standard conditions.
15, 16 and 17	None	BACT requirements for NO_X, CO and SO_2	Section 8	Brought forward from construction permit.
18 and 19	37	Air Pollution Prohibited	38	Subsumed into similar standard conditions
20	None	Stack Injection	36	Subsumed into similar standard condition
21-27	18-23 and Exhibit C	Source Testing and Monitoring Requirements	Section 12, 41-50	Subsumed into similar standard conditions
28	Exhibit E, Item 8	Certification	52	Subsumed into similar standard condition

[17] This table does not include all standard and general conditions

Condition No. in the previous permits		Description of Requirement	Permit No. 307TVP01 Condition Number	How condition was revised
Permit No. 307CP01	Permit No. 9325-AA007			
29	27	Submittals	53	Subsumed into similar standard condition.
30	None	Information Requests	54	Subsumed into similar standard condition
31	30	Recordkeeping Requirements	55	Subsumed into similar standard condition.
32	24-27	Excess Emission and Permit Deviation Reports	56	Subsumed into similar standard condition.
33	29 and Exhibit E	Operating Reports	58	Subsumed into similar standard condition
34-39	None	Standard operating conditions	Section 14 60-65	Subsumed into similar standard conditions
40	Condition 28	Access to facility	Section 14 66	Subsumed into similar standard condition.
6-9	1	Ambient Air Quality Standards	18-20	Subsumed into stationary source wide requirements and standard conditions.
None	2	NSPS Standards	8	Condition subsumed into unit specific requirements and standard conditions
None	3	Unit operating and maintenance requirements	None	Conditions superfluous to generally applicable obligations.
None	6-13 and 17 and Exhibit B	Requirements for the soil remediation unit	None	Soil remediation unit was decommissioned and the conditions the permit condition no longer applies.
None	14	Operating requirement for air stripper	None	Condition superfluous to generally applicable obligations.
None	15	On spec used oil	5.5a and 5.5b	Subsumed into similar standard conditions
None	16	Fugitive dust	35	Subsumed into similar standard conditions.
None	31	Modification Notification	None	Condition superfluous to generally applicable obligations under 18 AAC 50.300.
None	32	Operation instruction for emission units	None	Conditions superfluous to generally applicable obligations.
None	33	Display a Copy of the Permit	None	Condition eliminated as it has no environmental benefit
None	34-36 and Exhibit D	Continuous Monitoring	None	No applicable obligations
None	38	Report storage tank inventory to EPA	None	No applicable obligations

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The state and federal regulations for each condition are cited in Operating Permit No. 307TVP01.

Conditions 2 - 3, Emission Fees

Applicability: The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are emissions of each air contaminant authorized by the permit (AS 46.14.250(h)(1)(A)). Air contaminant means any regulated air contaminant and any hazardous air contaminant. Therefore, assessable emissions under AS 46.14.250(h)(1)(A) means the **potential** to emit any air contaminant identified in the permit, including those not specifically limited by the permit. For example, hydrogen chloride (HCl) emissions from an incinerator are assessable emissions because they are a hazardous air contaminant, even if there is currently no emission limit on HCl for that class of incinerator.

The conditions also describe how the Permittee may calculate **actual** annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air contaminant. Therefore, fees based on actual emissions must also be paid on any contaminant emitted whether or not the permit contains any limitation of that contaminant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emission based on actual emissions use the most recent previous calendar year's emissions. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match. The Permittee will normally pay for actual emissions - just with a one-year time lag.

Projected actual emissions may differ from the previous year's actual emissions if there is a change at the stationary source, such as changes in equipment or an emission rate from existing equipment.

If the Permittee does not choose to annually calculate assessable emissions, emissions fees will be based on “potential to emit” (PTE).

The PTE set forth in the condition is based on liquid fuel with a sulfur content of 0.3 percent by weight. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the Permittee should reflect the actual sulfur content.

Condition 4 and Section 6, Visible Emissions Standard

Applicability: This regulation applies to operation of all fuel-burning equipment in Alaska. Unit ID(s) 1-82 are fuel-burning equipment.

Factual Basis: Condition 4 requires the Permittee to comply with the federal and the state visible emission standards applicable to fuel-burning equipment and incinerators. The Permittee shall not cause or allow the equipment to violate these standards.

This condition has recently been adopted into regulation as a standard condition. MR&R requirements are listed in Section 6 of the permit.

Liquid Fired:

Monitoring – The visible emissions may be observed by either Method-9 or the Smoke/No Smoke plans as detailed in Section 6. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the Operating Report.

Insignificant Units[18]:

Unit ID(s) 13-17, 24, 25, 27, 30, 32-36, 39, 40, 41, 42, 46-49, 54a-64, 70-73 and 75-77 are insignificant units based on actual emissions. Engine Unit ID(s) 15-17, 25, 27, 30, 34, 35,40, 41 and 42 are subject to limits in conditions 20.1a, 20.1b, 20.1c, 20.1d, and 20.1e. As long as they operate within these limits they are considered insignificant emission units by emissions as specified in 18 AAC 50.335(r) and no periodic monitoring is required in accordance with Department Guidance AWQ 02-014 of April 02, 2002. Engine Unit ID 24 has been on site prior to 1980 and is considered historically operational with no operating limit. The unit is insignificant based on actual emissions. As such the unit is not listed in the Operating Permit. Engine Unit ID(s) 13, 14, 24, 32, 33, 36, 39, 43 and 46-49 are insignificant based on two years of actual emissions. Boiler Unit ID(s) 54a, 54, 55, 61, 70, 73, 76, 77, are insignificant based on potential emissions. Boiler Unit ID(s) 62-64, 71, 72 and 75 are insignificant based on two years of actual emissions. These insignificant units that have no specific operational limits are not listed in this Operating Permit but are listed in the construction permit No. 307CP01 Revision 1.The Permittee must annually certify compliance under condition 59 with the particulate matter standard. Unit IDs 7 to 12 have not been operated for several years. The applicant proposes to replace Unit IDs 7-10 with unit IDs 20-23. Unit ID(s) 11, 12, 26, 28, 29, 31, 37, 38, 43, 56-59, 65, and 66 are no longer operational, removed from site or replaced by new units. Unit ID 60 is electric powered. Therefore, these units are not listed in the Emission Unit Inventory.

Condition 5 and Section 6, Particulate Matter (PM) Standard

[18] Insignificant units that have no specific operating limits are not listed in Table 1

Applicability: The PM standard applies to the operation of all fuel burning equipment in Alaska. Unit IDs 1-82 are fuel-burning equipment. The SIP standard for PM applies to all fuel-burning equipment because it is contained in the federally approved SIP dated October 1983.

Factual Basis: Condition 5 requires the Permittee to comply with the state PM (also called grain loading) standard applicable to fuel-burning equipment. The Permittee shall not cause or allow fuel-burning equipment to violate this standard.

MR&R requirements are listed in Section 6 of the permit.

Liquid Fired:

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity set out in Section 6 are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed, 2) and the results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the Operating Report.

Insignificant Emission Units:

See Condition 4 Factual Basis.

Used Oil Burning Emission Units:

For Unit IDs 1-6, 74 and 78 burning used oil, the permittee is required to blend the used oil with diesel fuel oil. For Unit IDs 1-6 the permittee is required to blend used oil and diesel fuel oil in the ratio of no more than 1:5. The blending ratio is based on the applicant's proposal to use the WOTEC system that will automatically blend the fuels to a maximum ratio of 1:5. There are no AP-42 emission factors established for diesel engines burning used oil blend. As such the department requires the diesel engines to be source tested within 180 days after initially burning used oil blend to demonstrate compliance with state's grain loading standards. For Unit IDs 74 and 78, the permittee is required to blend used oil with diesel fuel oil in the ratio of no more than 1:2 to comply with the grain loading requirement. The determination was based on a 0.36 percent ash content in the used oil determined from fuel analysis. Additionally, the permittee is required to comply with the requirements of significant concentrations of halogenated compounds listed in 40 CFR Part 261, Appendix VIII. Emission unit 69 previously identified in Operating Permit No. 307TVP01 as burning used oil was later discovered to have been replaced by Unit ID 78. As such the unit ID No. 69 is removed from the Emission Unit inventory.

Condition 6, Sulfur Compound Emissions

Applicability: The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska. Unit ID(s) 1-82 are fuel-burning equipment. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October 1983.

Factual Basis: The condition requires the Permittee to comply with the sulfur compound emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g. Diesel or No. 2 fuel oil). Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard when combustion occurs with combustion at or air in excess of stoichiometric conditions. For fuels with a sulfur content greater than 0.75 percent, the condition requires the Permittee to use Section 16 to calculate the sulfur-dioxide concentration using the equations to show that the standard is not exceeded.

Fuel sulfur testing will verify compliance.

Recordkeeping - For Diesel fuel the Permittee is required to record the fuel sulfur content or fuel grade of each shipment and all material balance calculations.

Reporting – The Permittee is required to report excess emissions whenever the fuel combusted could cause sulfur compound emissions to exceed the standards listed in this condition. For these events, the Permittee is required to include the material balance calculations for fuel oil in the excess emissions report.

If incidents occur, the Permittee is required to include copies of the records mentioned in the previous paragraph with the Operating Report.

Condition 7, Incinerator Visible Emissions

Applicability: This visible emission standard applies to the operation of incinerator Unit IDs 84.

Factual Basis: The condition requires the Permittee to comply with the visible emission standard applicable to incinerators. Unit ID 84 is insignificant as long as it does not exceed the operating limits listed in condition 20.1f. As such, the unit is subject to the annual compliance reporting requirements.

NSPS Subpart Kb Requirements (Recordkeeping Only)

Applicability: NSPS Subpart Kb applicability requirements were revised in October 2003. Based on the revisions, Subpart Kb does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum vapor pressure less than 15 kPa. All storage vessels at EAS fall in this category and are not required to keep readily accessible records.

Condition 8, NSPS Subpart WWW Requirements for Municipal Solid Waste Landfills

Applicability: NSPS Subpart Cc applies to Municipal Solid Waste Landfills (MSWLFs) that commenced construction, reconstruction, or modification before May 30, 1991. NSPS Subpart WWW applies to MSWLFs that commenced construction, reconstruction, or modification on or after May 30, 1991.

Emission standards for certain MSWLFs**:** 40 CFR 60.752(a) states: The owner or operator of a MSWLF shall comply with the requirements of (b) – (g) of this section if

(1) the landfill design capacity, measured using megagrams or cubic meters, is

(A) 2.5 million megagrams or larger; or

(B) 2.5 million cubic meters or larger;

(2) construction, reconstruction, or modification of the MSWLF began before May 30, 1991;

(3) the MSWLF accepted waste on or after November 8, 1987; and

(4) uncontrolled emissions of nonmethane organic compounds (NMOC) are 50 megagrams per year or more, computed in accordance with 40 C.F.R. 60.754, adopted by reference in 18 AAC 50.040(a).

The landfill at present is too small for the above to apply. However, each owner or operator of an MSWLF having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in §60.757(a).

The existing landfill is 93,750 yd3 (71,677 cubic meters) in size was opened in 1992. If the landfill is modified and the size is increased to above 2.5 million cubic meters, more federal requirements become applicable and permittee must make the notification per NSPS Subpart WWW.

Factual Basis: Each owner or operator of an MSWLF having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall in accordance with 40 C.F.R. 60.35c submit an initial design capacity report to the Administrator as provided in §60.757(a). The condition incorporates Subpart WWW notification requirements. Permittee's landfill is at present too small to be subject to any other Subpart WWW requirement.

Additional Information: MSWLF are monitored under the Solid Waste Disposal Permit No. 9631-BA014. This permit is in accordance with the monitoring, recordkeeping and recording requirements listed in 18 AAC 60. The initial required submittal of the MSWL has been submitted to the Department. The design capacity for the EAS is reported to be 340,000 cubic feet (12,593 cubic yards).

Conditions 9-17, Section 6, Visible Emissions and PM Monitoring Plan

Applicability: Applies because these conditions detail the monitoring, recordkeeping, and reporting required in conditions 4 and 5.

Factual Basis: Each permit term and condition must include MR&R requirements showing verifiable compliance with each permit term and condition. The Permittee must establish by actual visual observations, which can be supplemented by other means, such as a defined Stationary Source Operation and Maintenance Program, that the stationary source is

in continuous compliance with the State's emission standards for visible emissions and particulate matter. The correlation between particulate matter and visible emissions that is the basis for this monitoring procedure is discussed under conditions 4 and 5.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter standards for liquid fired units. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, incinerators and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Monitoring frequencies for liquid fuels are detailed in these conditions.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from emission units either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Conditions 18-21, Section 7, Owner Requested Limits

Applicability: Conditions 19 and 20 are carried over from Preliminary Construction Permit No. 307CP01 to protect Ambient Air Quality Standards (AAQS).

Factual Basis: Condition 18 specifies the fuel types authorized to be burned in the fuel burning equipment. Condition 19 limits the sulfur content of fuel oil burned to no more than 0.3% by weight. The permittee assumed AP-42 emission factors for Diesel fuel oil and gasoline fuel to be the same as JP-8 and MUR oil, respectively. The permittee also used 0.3% fuel oil sulfur content to demonstrate compliance with AAQS.

Condition 20 limits the operating hours of the Diesel backup generators and firewater pump engines. This condition limits the engine driver's potential emissions, avoids new source review for the listed equipment and demonstrated compliance with AAQS. See Technical Analysis Report for Preliminary Construction Permit No. 307CP01, July 25, 2003.

Conditions 22, 23, and 24, Section 8, BACT Requirements

Applicability: The conditions are carried over from Construction Permit No. 307CP01 Revision 1. The stationary source was subject to retroactive PSD review for NO_X and CO for modifications in 1988 and was subject to PSD review for NO_X and SO_2 for the proposed 2003-2007 modifications. See addendum to the Technical Analysis Report for Preliminary Construction Permit No. 307CP01 Revision 1, October 19, 2004.

Factual Basis: In construction permit No. 307CP01 issued on September 29, 2003, the Department determined that Selective Catalytic Reduction (SCR) and Oxidation Catalyst was BACT for NO_X and CO for the primary engines (Unit IDs 5 & 6). The 611 ASG filed an Informal Appeal" of the BACT determination for primary engines 5 & 6. Based upon the Department's review of the applicant's submittals and detailed cost estimates submitted on November 17, 2003, the Department reversed the BACT estimates submitted on November 17, 2003, the Department reversed the original BACT determination and determined BACT to be Good Combustion Practice (GCP). Details of the BACT evaluation can be found in the Addendum to the Technical Analysis Report for Permit No. 307CP01 Revision 1. For the two firewater pumps installed in 1988 and for the proposed 2003-2007 units, GCP is

determined to be BACT. Condition 22 requires the permittee to comply with the requirements for units subject to BACT review for NO_X.

Condition 23 requires the permittee to comply with GCP for the primary engines 5 and 6, the two firewater pump engines installed in 1988 and proposed 2003-2007 units.

Condition 24 requires the permittee to comply with fuel oil sulfur content of 0.3% as BACT for all emission units proposed to be installed in 2003-2007.

Condition 25, NESHAPS Applicability Determinations

Applicability: The Permittee has the responsibility to determine if specific federal regulations apply to its facilities.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a HAP major stationary source based on emissions. This condition requires the Permittee to keep and make available to the Department copies of the major stationary source determination.

Conditions 26, New Emission Units

Applicability: The permittee is required to notify the Department when installing emission units not included in Table 1

Factual Basis: The Permittee demonstrated compliance with AAQS for emission units in Table 1 with operating limits in the permit. Any new units, that are not included in Table 1, have the potential to violate the AAQS.

Conditions 27-30, Insignificant Emission Units

Applicability: These general emission standards apply to all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual Basis: The conditions reiterate the general standards and require compliance for insignificant emission units. The Permittee may not cause or allow their equipment to violate these standards. Insignificant emission units are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

The Department finds that the insignificant emission units at this stationary source do not need specific monitoring, recordkeeping and reporting to ensure compliance under these conditions.

Condition 27 requires certification that the emission units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution. For Unit IDs 13-17, 25, 27, 30, 32-36, 39, 40, 41, 42, and 46-49 as long as they do not exceed the limits of their hours of operation as stated in conditions 20.1a, 20.1b, 20.1c, 20.1d and 20.1e, they are considered insignificant emission units and no monitoring is required in accordance with recently issued Department Guidance AWQ 02-014 #3, April 2, 2002, for standby emission units. Unit ID 24 has no operating limit but is considered insignificant because it is a backup unit that have been operated since before 1980 for only a few hours annually.

State air quality regulations adopted effective May 3, 2002 allow for an average six minute opacity observation. The rescinded regulation, limiting opacity to no more than 20% for

more than 3 minutes in any one hour, is included because U.S. EPA Region X has not formally approved the changed opacity regulation as part of Alaska's State Implementation Plan (SIP).

Compliance Plan

Applicability: State regulations require that a Title V operating permit contains a compliance plan for permit conditions for which the stationary source is currently in violation.

Factual Basis: The applicant identified the following list of requirements as not in compliance in the permit application:

1. The potential emissions of non road engines when determining the classification of non road engines.
2. Applicability of PSD regulations for all new and modifications to construction projects.
3. Semi annual progress reports, certified as required by 18 AAC 50.205 at least every six months or more frequently if requested by the Department.
4. Submission of a compliance certification at least every year
5. Testing of used oil to ensure that it complies with requirement of 40 CFR 261 and management of used oil should be in compliance with 40 CFR 279.
6. Submit to EPA an inventory of all storage tanks located at the facility.

With the exception of requirements 2 and 6, Operating Permit No. 307TVP01 includes terms and conditions to require the Permittee to comply with requirements. Permit condition 21 was included to require the Permittee to report any unit that no longer qualifies as non road engines. The Permittee has met the obligation in item 2, and has applied for a PSD permit. The Department has reviewed the application and is currently in the process of issuing the permit. The Permittee is not required to submit a list of storage tanks as listed in requirement 6. Therefore, Operating Permit No. 307TVP01 does not include any outstanding compliance issues.

Condition 31, Asbestos NESHAP

Applicability: The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

Factual Basis: The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. These regulations include adequate monitoring and reporting to ensure compliance with these federal regulations.

Condition 32, Refrigerant Recycling and Disposal

Applicability: Applies if the Permittee engages in the recycling or disposal of certain refrigerants.

Factual Basis: The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F, that

apply due to the recycling and disposal operations conducted onsite. These regulations include adequate monitoring and reporting requirements for the permitted activities to ensure compliance with this federal regulation.

Condition 33, Good Air Pollution Control Practice

Applicability: Applies to all units that are significant under 18 AAC 50.335(q)-(r) **except** NSPS and NESHAP regulated units.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all emission units.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 34, Dilution

Applicability: This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 35, Reasonable Precautions to Prevent Fugitive Dust

Applicability: Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the stationary source.

This condition applies to operating permits for facilities that do not have an approved dust control plan, and contain one of the following emission units: coal-fired boilers; coal handling facilities; construction of gravel pads or roads that are part of a permitted stationary source or other construction that has the potential to generate fugitive dust that reaches ambient air; commercial/industrial/municipal solid waste, air curtain, and medical waste incinerators; sewage sludge incinerators not using wet methods to handle that ash; mines; urea manufacturing; soil remediation units; or dirt roads under the control of the operator with frequent vehicle traffic.

Factual Basis: The underlying regulation, 18 AAC 50.045(d), requires the Permittee to take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air.

Not all facilities have the potential to generate fugitive dust during the life of the permit. The Department will determine whether precautions are reasonable based on a variety of factors, including the distance to the stationary source boundaries, nature and content of the dust, proximity to neighbors, and the nature of the activity. This condition applies to the types of emission units or activities that are likely to generate fugitive dust as identified above. It allows the precautions that are identified under the permit to be appropriate and specific to the activities conducted by the Permittee.

Condition 36, Stack Injection

Applicability: Stack injection requirements apply to the stationary source because the stationary source contains a stack or emission unit constructed or modified after November 1, 1982.

Factual Basis: The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the emission unit or stack would need to be modified to accommodate stack injection.

Condition 37, Open Burning

Applicability: The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: The condition requires the Permittee to comply with the regulatory requirements when conducting open burning at the stationary source.

No specific monitoring is required for this condition. Condition 37.1f requires the Permittee to keep "sufficient records" to demonstrate compliance with the standards for conducting open burning, but does not specify what these records should contain.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their activities. Also, most of the requirements are prohibitions, which are not easily monitored. Additional monitoring is achieved through condition 38, which requires a record of complaints.

Condition 38, Air Pollution Prohibited

Applicability: Air Pollution Prohibited requirements apply to the stationary source because the stationary source will have emissions.

Factual Basis: The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. While the other permit conditions and emissions limitation should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints and to submit copies of these records upon request of the Department.

The Department will determine whether the necessary actions were taken. No corrective actions are necessary if the complaint is frivolous or there is no violation of 18 AAC 50.110. However, this condition is intended to prevent the Permittee from prejudging that complaints are invalid.

Condition 39, Technology-Based Emission Standard

Applicability: Technology Based Emission Standard requirements apply to the stationary source because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other "technologically feasible" determinations.

Factual Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 56. Excess emission reporting under condition 56 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under condition 56.

Condition 40, Permit Renewal

Applicability: Applies if the Permittee intends to renew the permit.

Factual Basis: The Permittee is required to submit an application for permit renewal by the specific dates applicable to Eareckson Air Station as listed in this condition. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

Condition 41, Requested Source Tests

Applicability: Applies because this is a standard condition to be included in all permits.

Factual Basis: The Permittee is required to conduct source tests as requested by the Department. Monitoring consists of conducting the requested source test.

Conditions 42 - 44, Operating Conditions, Reference Test Methods, Excess Air Requirements

Applicability: Applies because the Permittee is required to conduct source tests by this permit.

Factual Basis: The Permittee is required to conduct source test as set out in conditions 42 through 44. These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with conditions 42 through 44 consist of the test reports required by condition 49.

Condition 45, Test Exemption

Applicability: Applies when the unit exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), as revised May 3, 2002, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 46 - 49, Test Deadline Extension, Test Plans, Notifications and Reports

Applicability: Applies because the Permittee is required to conduct source tests by this permit.

Factual Basis: Standard conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. These standard conditions supplement specific monitoring requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

Condition 50, Continuous Emission Monitoring Systems

Applicability: Does not apply to EAS under the current permit..

Factual Basis: If required, the condition incorporates the specific requirements and specific federal regulations the Permittee is required to comply with when using CEMS

Condition 51, Particulate Matter (PM) Calculations

Applicability: Applies when the Permittee tests for compliance with the PM standard.

Factual Basis: The condition incorporates a regulatory requirement for PM source tests. The Permittee must use the equation given in this condition to calculate the PM emission concentration from the source test results. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 52, Certification

Applicability: This is a standard condition to be included in all permits. Applies because every permit requires the Permittee to submit reports.

Factual Basis: This condition requires the Permittee to certify all reports submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be **certified** with the Operating Report, even though it must still be **submitted** more frequently than the operating report interval. This condition supplements the reporting requirements of this permit.

Condition 53, Submittals

Applicability: Applies because the Permittee is required to send reports to the Department.

Factual Basis: This condition requires the Permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit.

Condition 54, Information Requests

Applicability: Applies to all Permittees, and incorporates a standard condition.

Factual Basis: This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information.

Condition 55, Recordkeeping Requirements

Applicability: Applies because the Permittee is required by the permit to keep records.
Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide evidence of compliance with this requirement.

Condition 56, Excess Emission and Permit Deviation Reports

Applicability: Applies when the emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.
The reports themselves and the other monitoring records required under this permit provide monitoring of whether the Permittee has complied with the condition.

Condition 57, NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS and NESHAP federal regulations.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61. The reports themselves provide monitoring for compliance with this condition.

Condition 58, Operating Reports

Applicability: Applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition.

Condition 59, Annual Compliance Certification

Applicability: Applies to all Permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. The reports themselves provide monitoring for compliance with this condition.

Conditions 60 - 66, Standard Conditions

Applicability: Applies because these are standard conditions to be included in all permits.

Factual Basis: These are standard conditions required for all operating permits.